

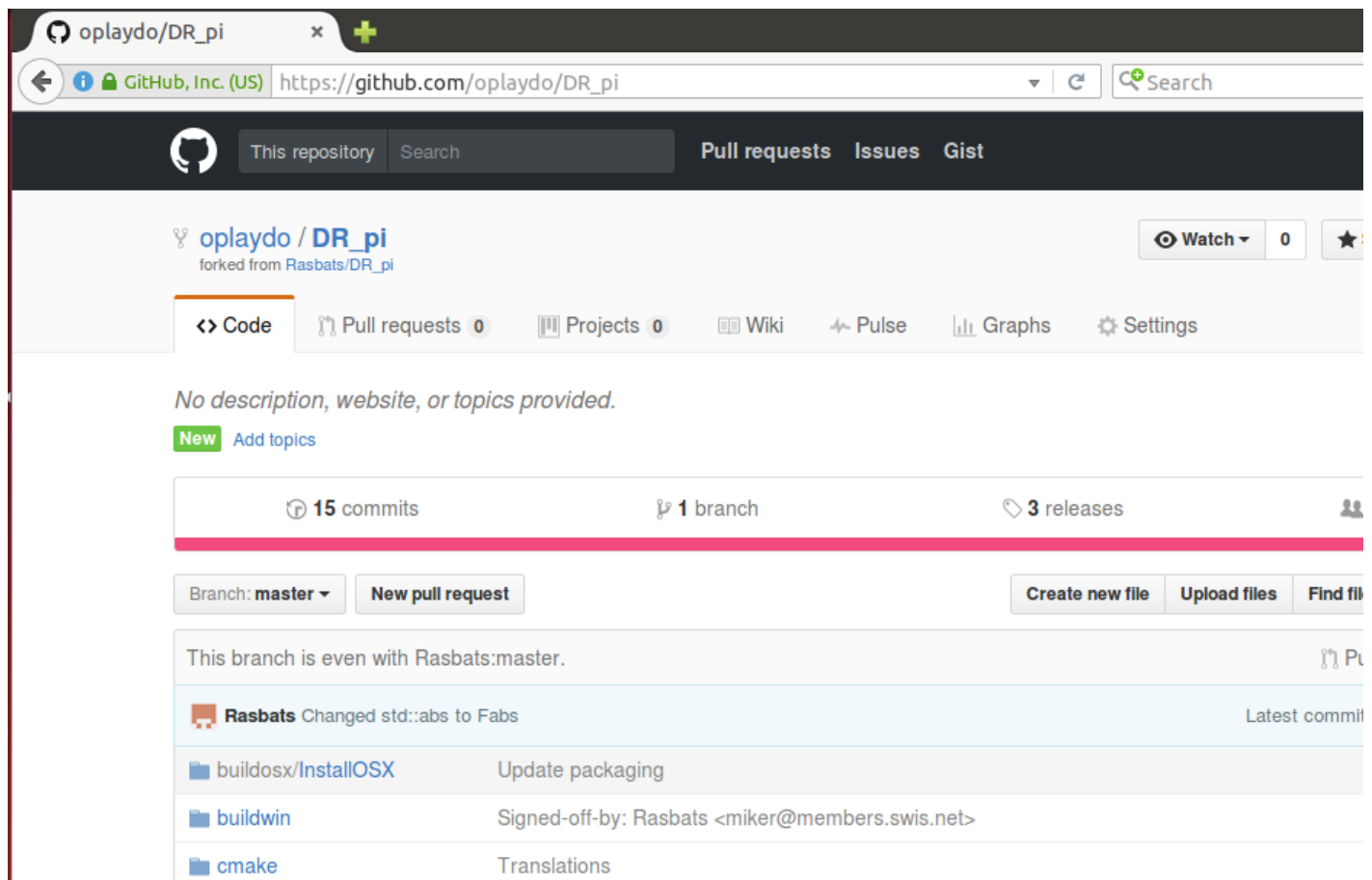
Fork and Build (Linux)

Requirements

- Register with GitHub and obtained a profile. This allows the setting up of repositories where your code can be published.
- Git
- CMake

Process

- Using GitHub and working from your main GitHub folder make a fork of DR_pi from https://github.com/Rasbats/DR_pi
- Using 'Terminal' clone the plugin onto your machine:



```
mike@mike-TECRA-A10: ~/learning
mike@mike-TECRA-A10:~$ mkdir learning
mike@mike-TECRA-A10:~$ cd learning
mike@mike-TECRA-A10:~/learning$ git clone https://github.com/oplaydo/DR_pi.git
```

- Make the 'build' directory and cd to 'build':

```
mike@mike-TECRA-A10: ~/learning/DR_pi/build
mike@mike-TECRA-A10:~$ cd learning
mike@mike-TECRA-A10:~/learning$ cd dr_pi
bash: cd: dr_pi: No such file or directory
mike@mike-TECRA-A10:~/learning$ cd DR_pi
mike@mike-TECRA-A10:~/learning/DR_pi$ mkdir build
mike@mike-TECRA-A10:~/learning/DR_pi$ cd build
mike@mike-TECRA-A10:~/learning/DR_pi/build$
```

- 'CMake' a 'CodeBlocks' project:

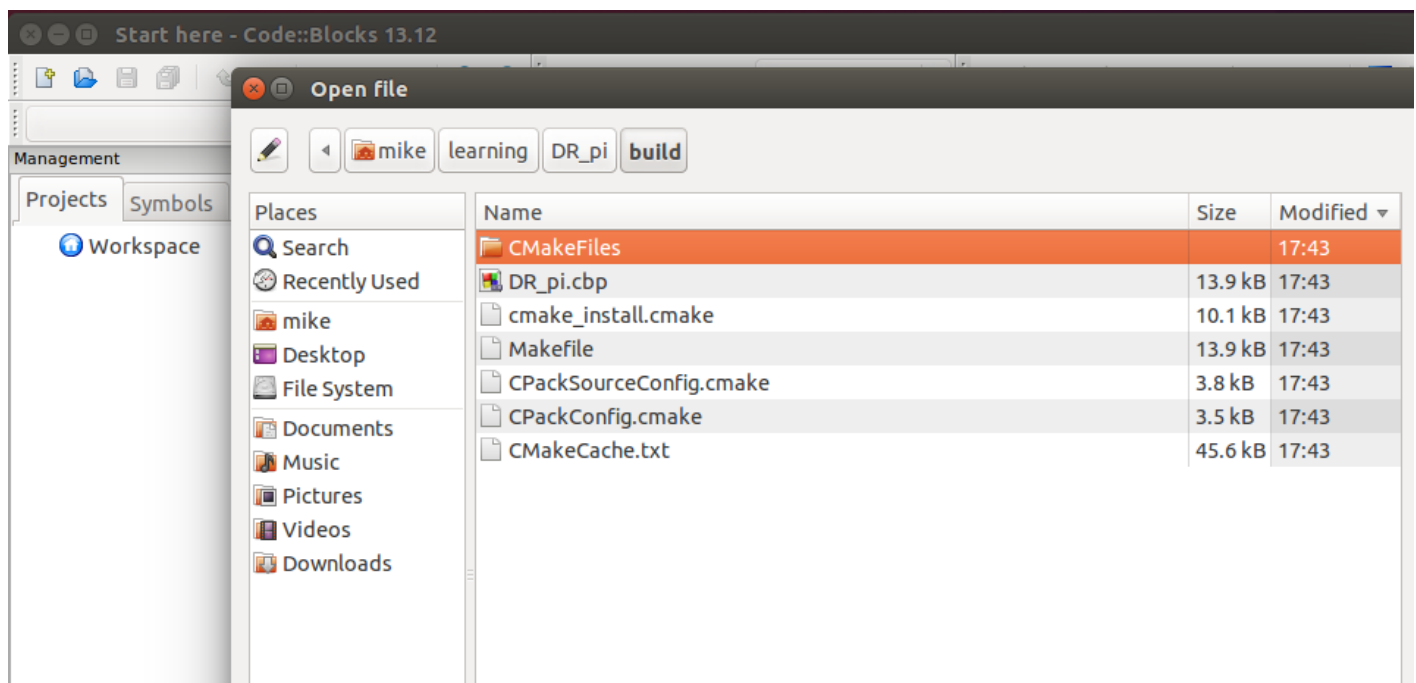
```
mike@mike-TECRA-A10: ~/learning/DR_pi/build
mike@mike-TECRA-A10:~$ cd learning
mike@mike-TECRA-A10:~/learning$ cd dr_pi
bash: cd: dr_pi: No such file or directory
mike@mike-TECRA-A10:~/learning$ cd DR_pi
mike@mike-TECRA-A10:~/learning/DR_pi$ mkdir build
mike@mike-TECRA-A10:~/learning/DR_pi$ cd build
mike@mike-TECRA-A10:~/learning/DR_pi/build$ cmake -G "CodeBlocks - Unix Makefiles" ../
```

```

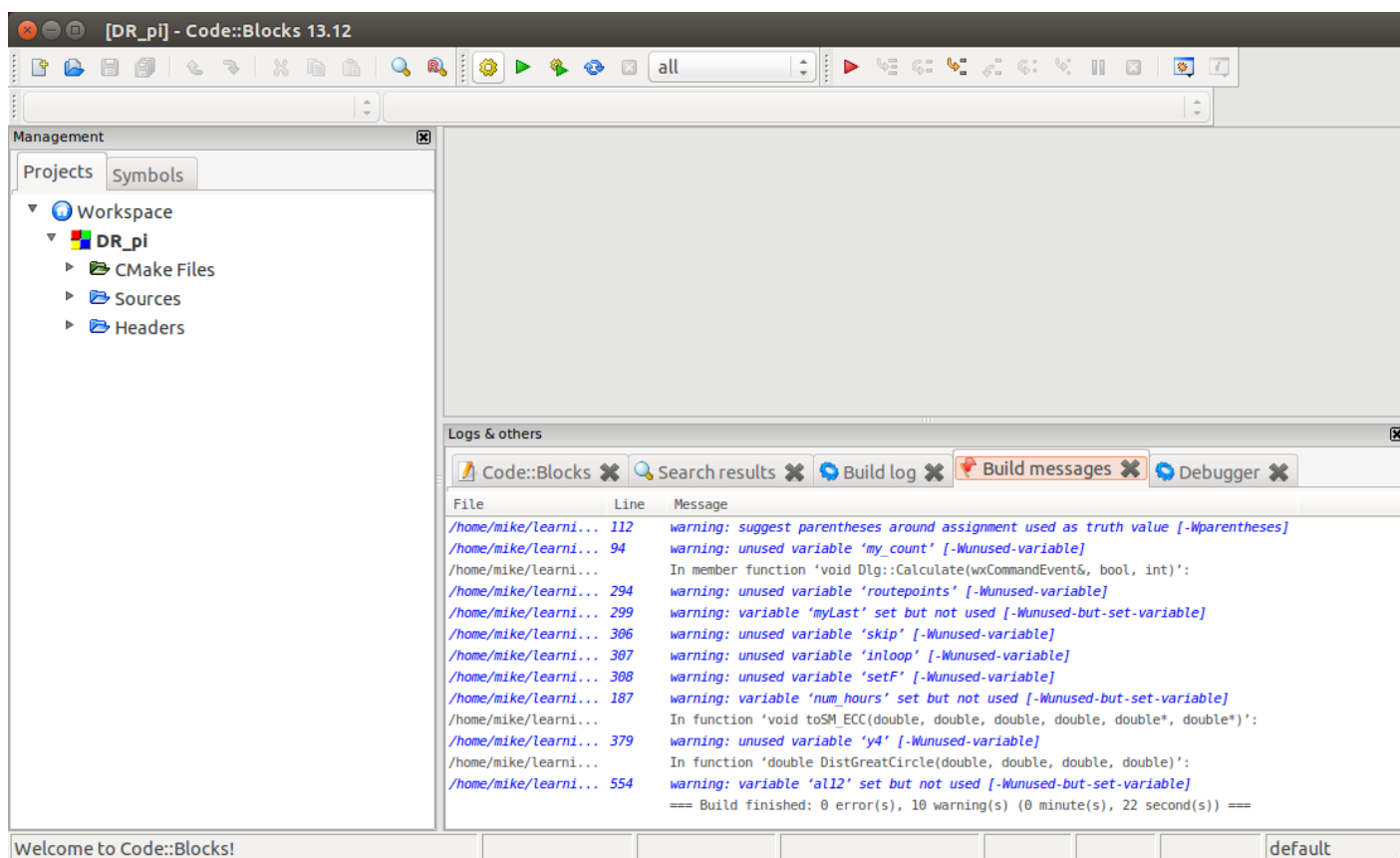
mike@mike-TECRA-A10: ~/learning/DR_pi/build
-- Looking for gethostbyname - found
-- Looking for connect
-- Looking for connect - found
-- Looking for remove
-- Looking for remove - found
-- Looking for shmat
-- Looking for shmat - found
-- Looking for IceConnectionNumber in ICE
-- Looking for IceConnectionNumber in ICE - found
-- Found X11: /usr/lib/i386-linux-gnu/libX11.so
-- Found OpenGL: /usr/lib/i386-linux-gnu/libGL.so
-- Found OpenGL...
--   Lib: /usr/lib/i386-linux-gnu/libGLU.so/usr/lib/i386-linux-gnu/libGL.so/usr/lib/i386-linux-gnu/libSM.so/usr/
lib/i386-linux-gnu/libICE.so/usr/lib/i386-linux-gnu/libX11.so/usr/lib/i386-linux-gnu/libXext.so
--   Include: /usr/include
-- Found Gettext: /usr/bin/msgmerge (found version "0.18.3")
-- Found BZip2: /usr/lib/i386-linux-gnu/libbz2.so (found version "1.0.6")
-- Looking for BZ2_bzCompressInit in /usr/lib/i386-linux-gnu/libbz2.so
-- Looking for BZ2_bzCompressInit in /usr/lib/i386-linux-gnu/libbz2.so - found
-- Found ZLIB: /usr/lib/i386-linux-gnu/libz.so (found version "1.2.8")
-- Configuring done
-- Generating done
-- Build files have been written to: /home/mike/learning/DR_pi/build
mike@mike-TECRA-A10:~/learning/DR_pi/build$

```

- To see what files have been made use 'Files' to navigate to 'learning/DR_pi/build'. The 'CodeBlocks' project is called 'DR_pi.cbp'.



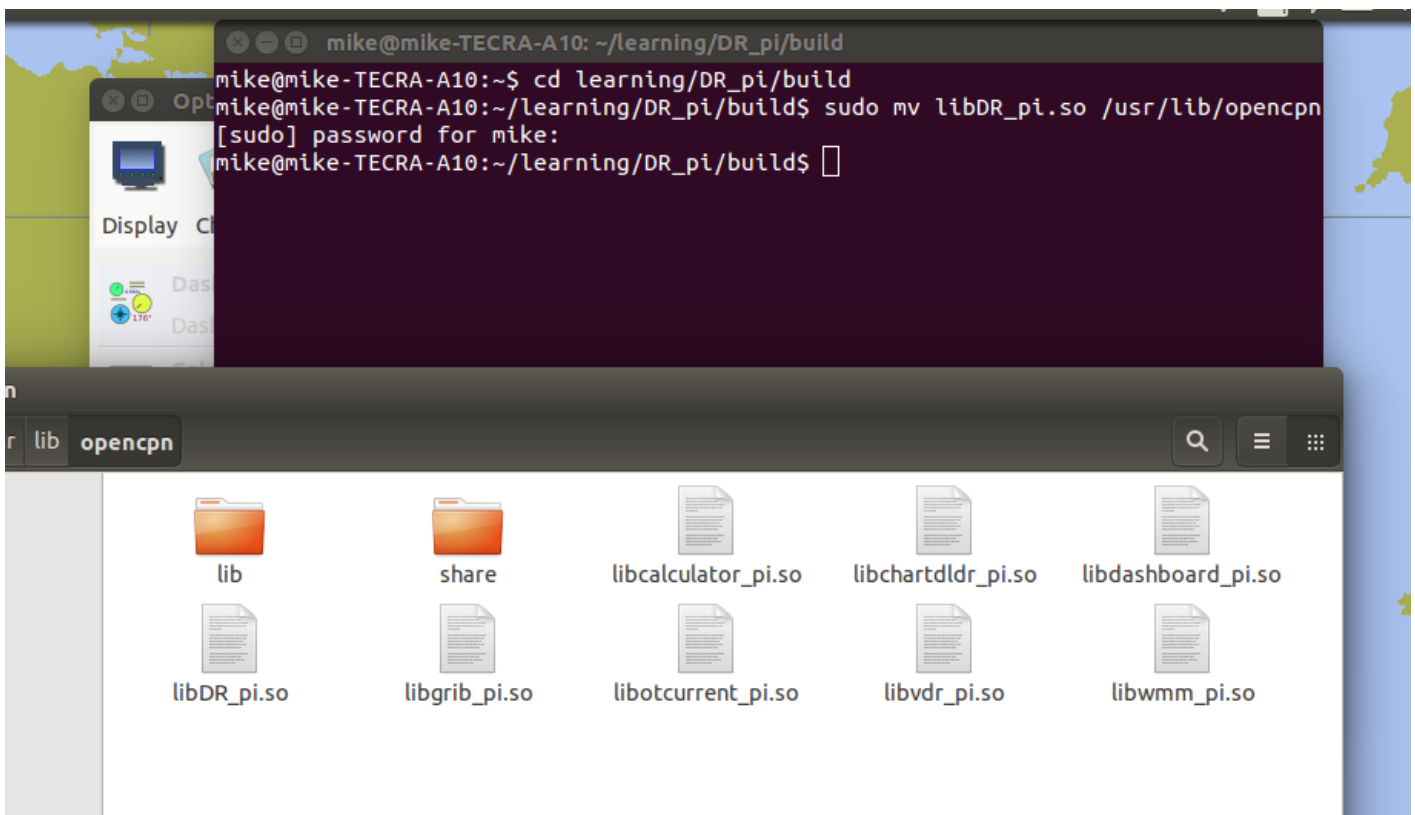
- Start 'CodeBlocks' and 'Build' the project.



- There are some warnings but no errors.
- This builds the plugin file 'libDR_pi.so' in the 'build' directory

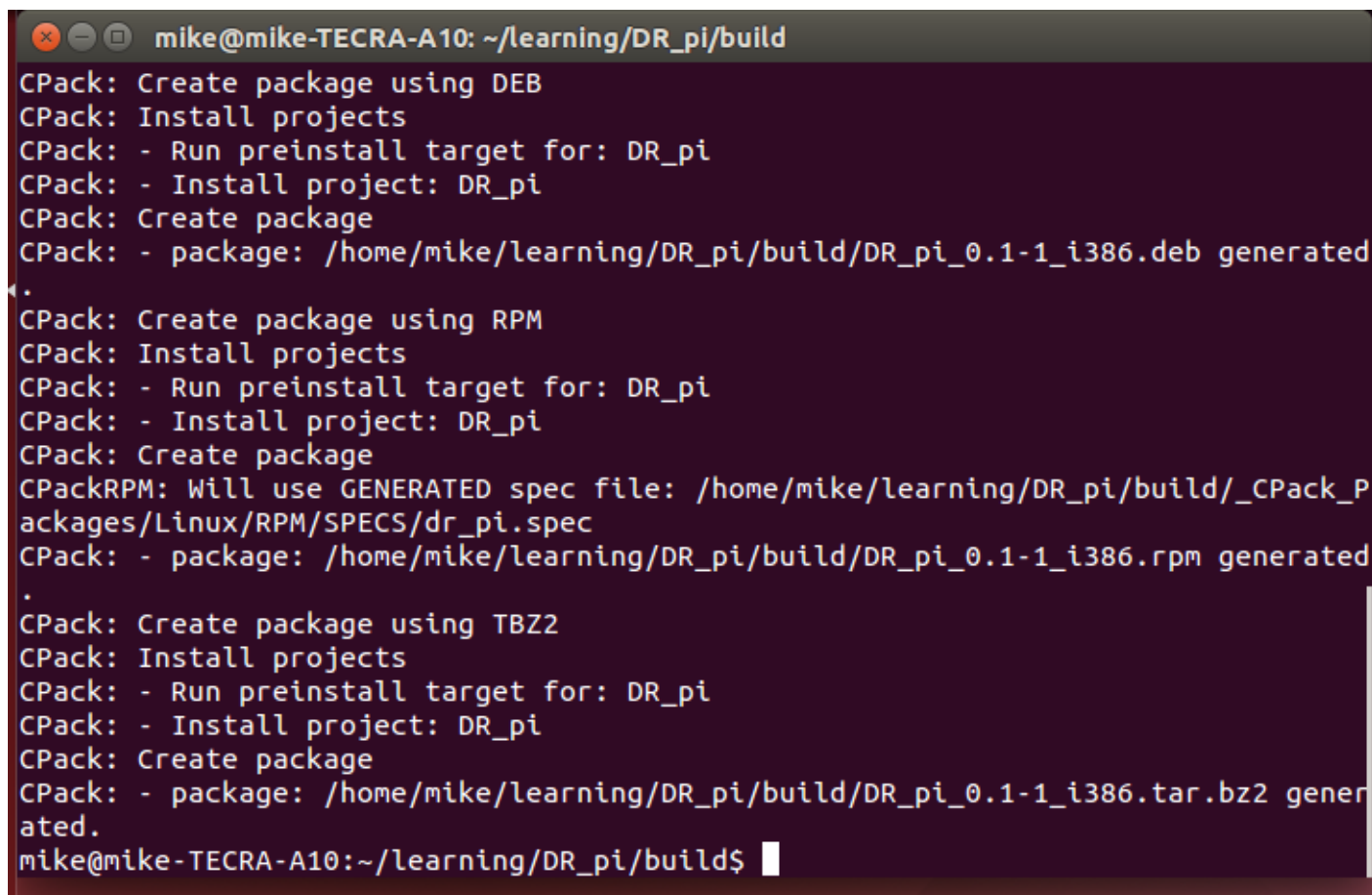
```
mike@mike-TECRA-A10: ~/learning/DR_pi/build
-- Installing: /usr/local/lib/opencpn/libDR_pi.so
-- Installing: /usr/local/share/locale/cs/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/es/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/fi/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/ca/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/vi/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/nl/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/ja/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/de/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/sv/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/pl/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/tr/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/hu/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/fr/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/el/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/pt/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/gl/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/da/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/zh/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/nb/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/ru/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/et/LC_MESSAGES/opencpn-DR_pi.mo
-- Installing: /usr/local/share/locale/it/LC_MESSAGES/opencpn-DR_pi.mo
mike@mike-TECRA-A10:~/learning/DR_pi/build$
```

- The .so file can be moved to the plugins folder 'usr/lib/opencpn' using 'Terminal'.



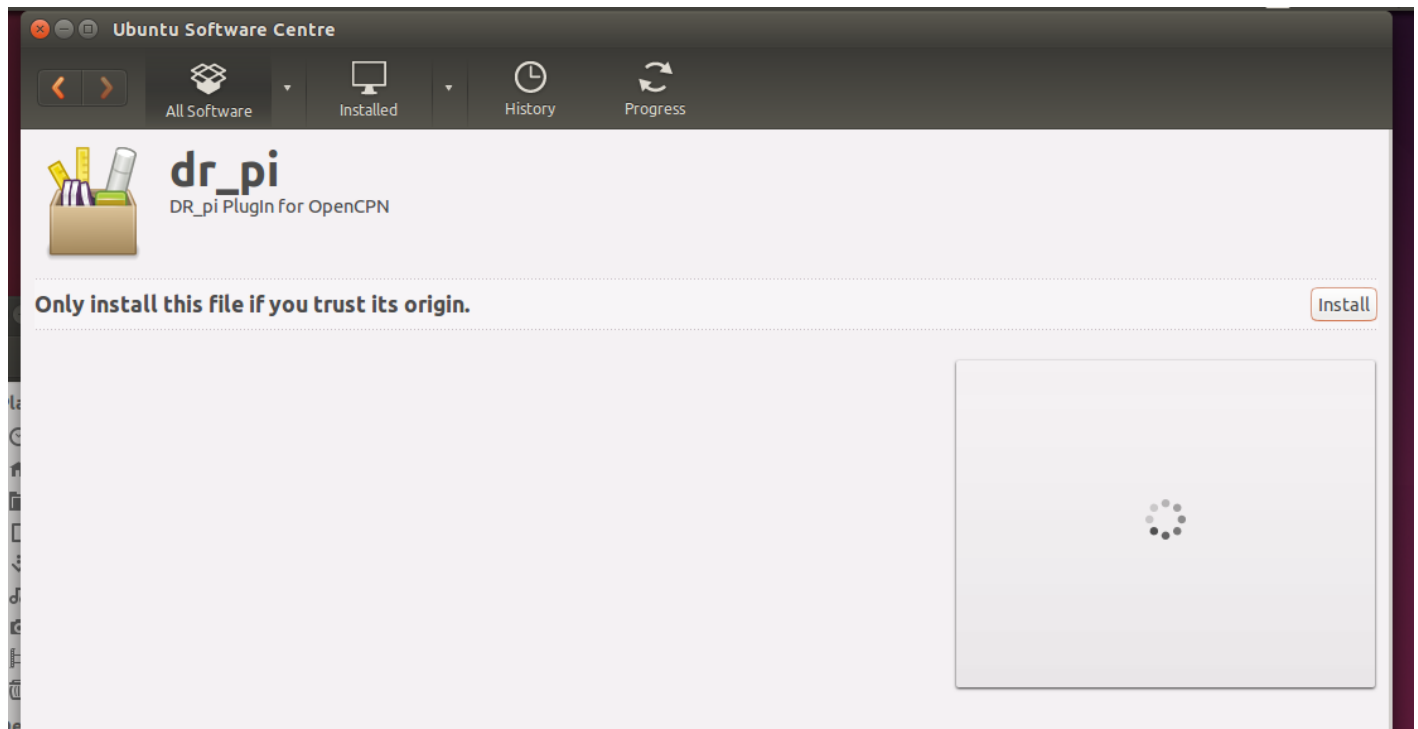
Alternative plugin installation using the Software Centre

- It may be easier to make a package and install this using the 'Ubuntu Software Centre'.
- From 'Terminal', in 'build', 'sudo make install', 'sudo make package'. The .deb package is made in the 'build' folder.

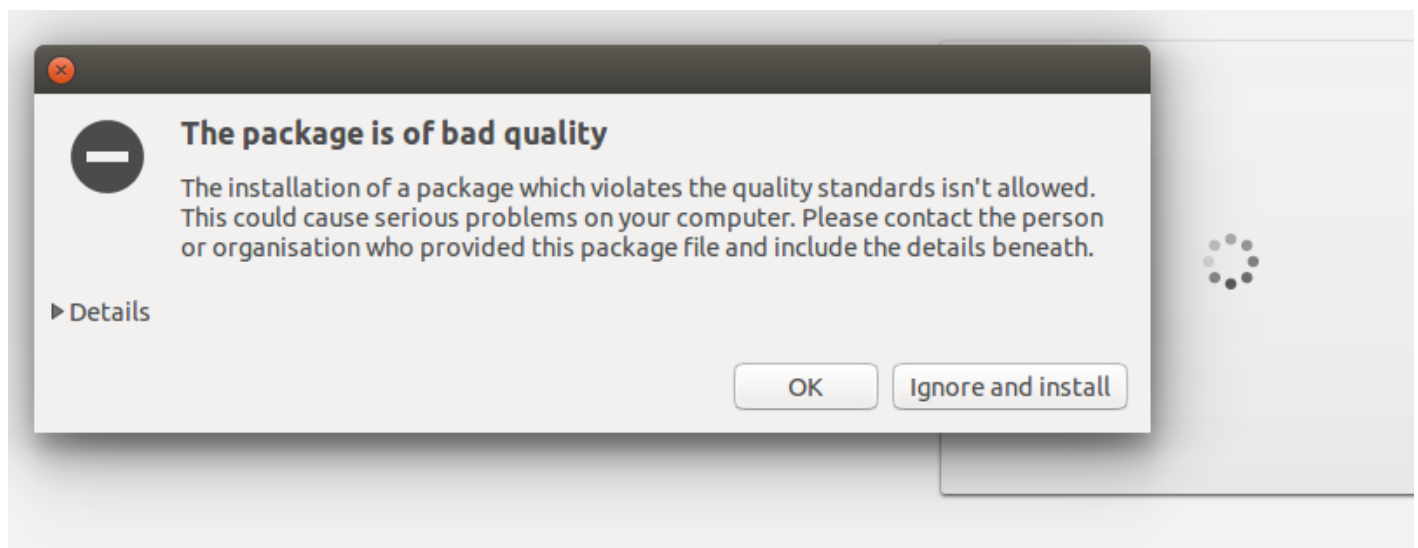


```
mike@mike-TECRA-A10: ~/learning/DR_pi/build
CPack: Create package using DEB
CPack: Install projects
CPack: - Run preinstall target for: DR_pi
CPack: - Install project: DR_pi
CPack: Create package
CPack: - package: /home/mike/learning/DR_pi/build/DR_pi_0.1-1_i386.deb generated
.
CPack: Create package using RPM
CPack: Install projects
CPack: - Run preinstall target for: DR_pi
CPack: - Install project: DR_pi
CPack: Create package
CPackRPM: Will use GENERATED spec file: /home/mike/learning/DR_pi/build/_CPack_P
ackages/Linux/RPM/SPECS/dr_pi.spec
CPack: - package: /home/mike/learning/DR_pi/build/DR_pi_0.1-1_i386.rpm generated
.
CPack: Create package using TBZ2
CPack: Install projects
CPack: - Run preinstall target for: DR_pi
CPack: - Install project: DR_pi
CPack: Create package
CPack: - package: /home/mike/learning/DR_pi/build/DR_pi_0.1-1_i386.tar.bz2 gener
ated.
mike@mike-TECRA-A10:~/learning/DR_pi/build$
```

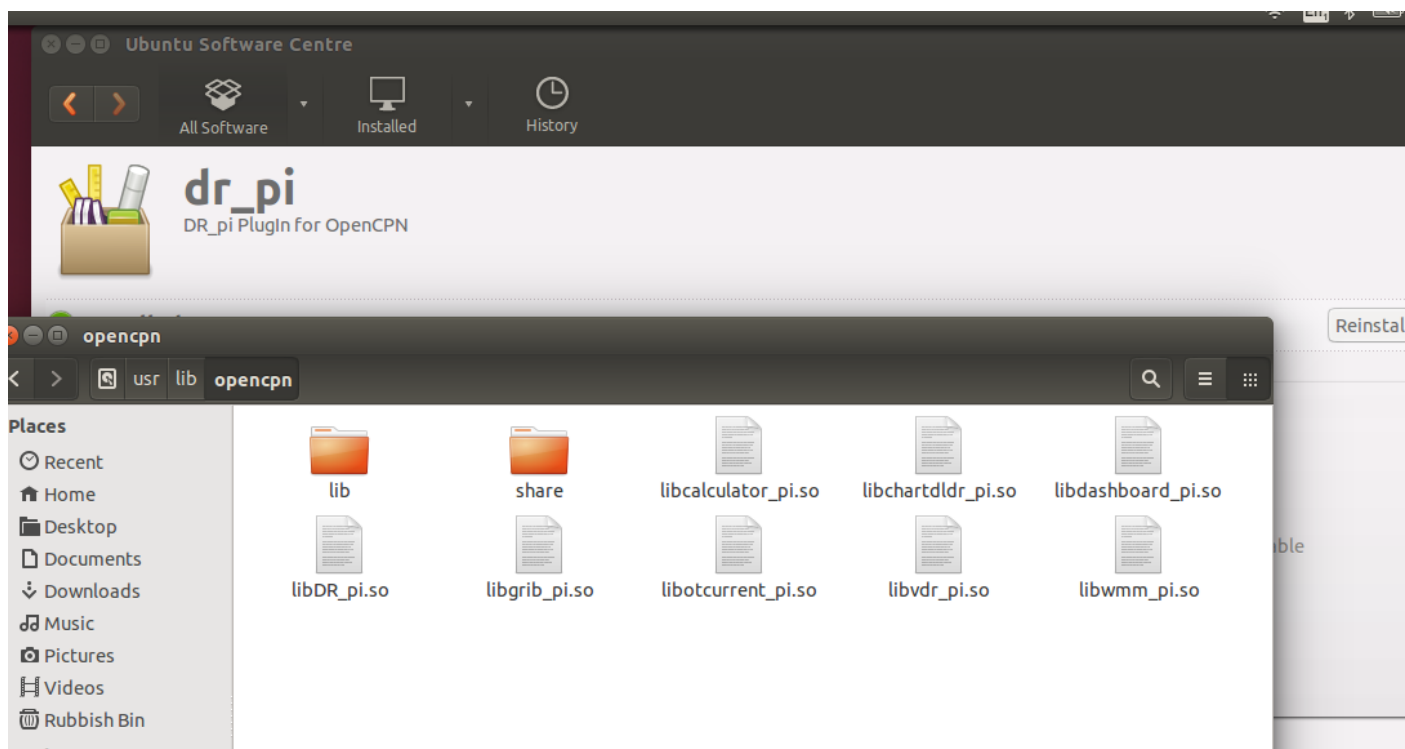
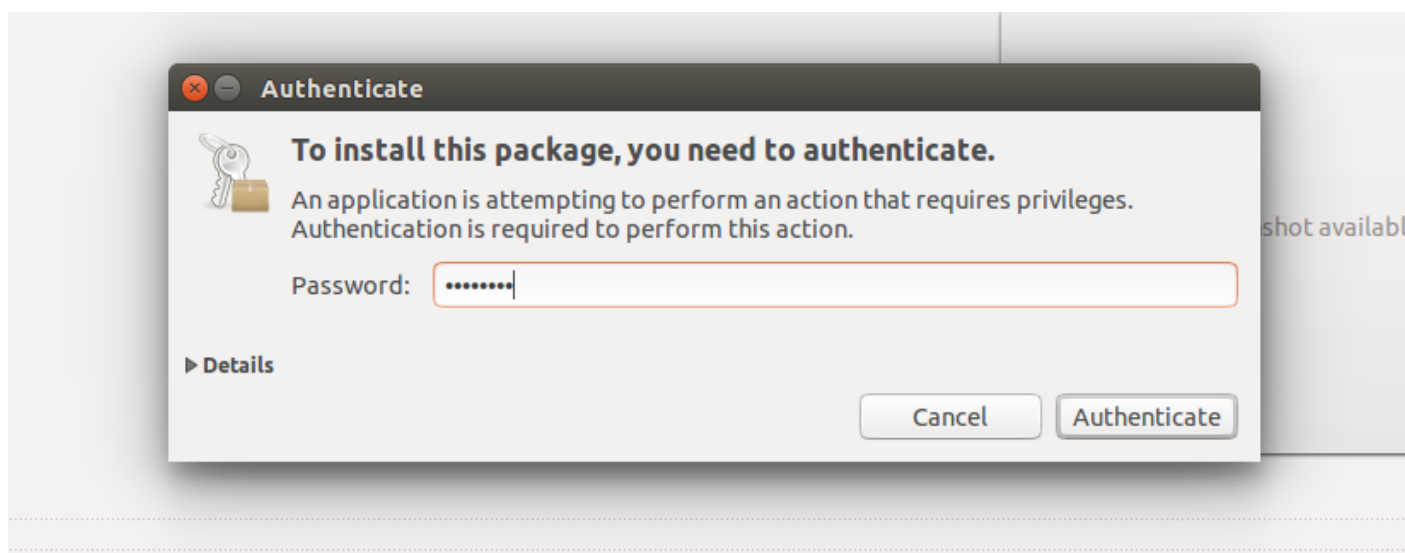
- Open the .deb file from 'build' in the 'Ubuntu Software Centre'.



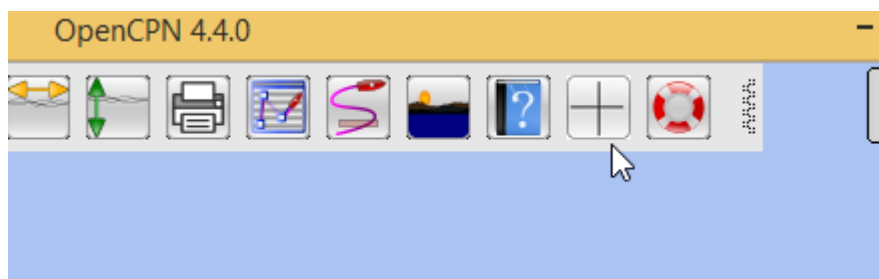
- A warning

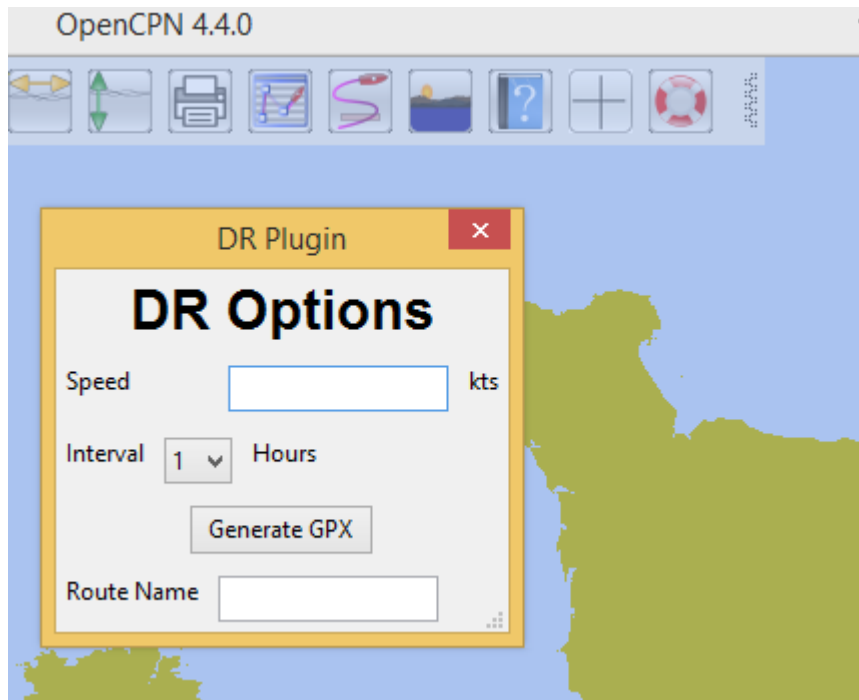


- Carry on!



- The plugin libDR_pi.so has been installed in '/usr/lib/opencpn'.
- When you enable the DR plugin you should see the plugin icon on the toolbar.





Notes

The next guide will show the DR_pi plugin being renamed as 'oplaydo1_pi' and modified.

'oplaydo1_pi' will allow the user to input start and finish positions. From these positions a GPX file will be created that can be imported and viewed in OpenCPN.

From:
<https://opencpn.org/wiki/dokuwiki/> - OpenCPN Manuals

Permanent link:
https://opencpn.org/wiki/dokuwiki/doku.php?id=opencpn:developer_manual:plugins:learning:fork_and_build_linux

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